REMARKS

As a preliminary matter, the Applicant has retained new patent counsel to prosecute this application. The document revoking the old power of attorney and granting the new power is filed concurrently herewith. Please note the contact information for the undersigned counsel.

Claims 1-5 and 7-20 are currently pending. Claims 1, 15, and 19 are amended to correct several typographical and grammatical errors and claim 18 is amended to correct a lack of antecedent basis. Claims 1-5 and 7-20 are rejected under 35 U.S.C. §102(b) as being anticipated by i-O Display Systems H3D Terminator 3D Gaming Glasses (hereinafter the "i-O Glasses") as described in a June 6, 2000 Business Wire article (hereinafter the "Business Wire article") and the i-O Display Products Listing. Applicant respectfully traverses these rejections.

The i-O Glasses are typical 3D glasses known as LCD shutter glasses. A description of the i-O Glasses and LCD shutter glasses in general is found in a review and FAQ page provided by the 3D Gaming World website (http://www.3dgw.com). A copy of the relevant web pages are provided in connection with the IDS enclosed herewith.

The lenses of the glasses are made up of a clear LCD panel that can either pass your vision on or off for each lens. In order to see things in 3D each eye must see a slightly different picture. This is done in the real world by a person's eyes being spaced apart so each eye has its own slightly different view. The brain then puts the two pictures together to form one 3D image that has depth to it.

With LCD shutter glasses, each lens can be turned off independently. The lenses are synced via cable or wireless so when the monitor displays the image meant for the right eye, the lens of the left eye is shut off, and when the monitor is displaying the image meant for the left eye, the right eye is shut off. This switching back and forth happens very rapidly around 60 times per second which if done correctly provides a flicker free 3D Image on the monitor. There are several different methods of sending the separated views to the monitor for use with the glasses. The modes include interlacing, page flipping, sync doubling, line blanking, and anaglyph.

The components of the i-O Glasses are depicted in a web review by Christoph Bungert entitled "Unofficial i-O Display Systems H3D Terminator, H3D Cruiser and 'Universal' controller page" on the website http://www.stereo3d.com/terminator.htm (hereinafter "Stereo3D Review"). A copy of the relevant web pages from both the original 2000 and original versions of the article are provided in connection with the IDS enclosed herewith.

The components of the i-O Glasses include the glasses, a wired or wireless input to the glasses, and a cable (controller) for connecting the VGA card, the monitor and the glasses (either wired or IR wireless). The cable is connected either wired or wireless to the glasses so that the glasses receive the sync information necessary for controlling the lenses of the glasses. The game player then uses the glasses to view the monitor. The lenses are switched on and off in sync with the monitor to provide the game player with 3D viewing.

Thus, when the Business Wire article states that "H3D software drivers working with the Z axis depth information already available in nearly any modern DirectX, Glide or OpenGL game can create a stereo 3D image pair – one image for your left eye and a slightly different image for your right eye," this only means that the H3D software drivers allow the lenses of the glasses to be synchronized with the monitor that display the game. Moreover, the statement in the Business Wire article that the "H3D Terminator glasses ensure that each eye receives the proper signal" is easily subject to misinterpretation by failing to describe important details. In reality, the glasses to not display the image viewed by the game player. Rather, the glasses only control the viewing of the image on the monitor.

A similar construct is depicted in figure 1A of the present application. The dashed arrows in figure 1A depict display of a 3D game in the conventional mode. As depicted, in the conventional mode, a 3D video game 10 is played and game API drivers 12 provide display image data to display card 14 which then provides a display signal to 2D display monitor 16. The i-O Glasses are similar to the conventional mode except that the I-O Glasses are connected to the output of display card 14 to receive sync information and used by a game player to view 2D display monitor 16.

The preferred embodiment of the present invention is depicted by the solid arrows on figure 1A, side by side with the conventional mode. The preferred embodiment uses a pseudo driver system to intercept API function calls. Pseudo API drivers 20 then generate a right image and left image, which are input to right stereo display card 22 and left stereo display card 24, respectively. Display cards 22 and 24 generate the respective bit-mapped image outputs to activate the display elements in the corresponding right and left eyepieces of stereoscopic display unit 26.

Turning to the claims, claim 1 recites "intercepting the 3D output signal from the application software and redirecting said 3D output signal to a pseudo driver, wherein said pseudo driver generates from said output signal a left image view signal and a right image view

signal that is stereoscopically offset from the left image view signal." The i-O Glasses fail to teach or suggest this element. The drivers used with the i-O Glasses do not generate a left image view signal and a right image view signal. Rather, when using the i-O Glasses, the drivers produce a single interlaced signal.

Also, claim 1 recites "providing said left image view signal to a first 3D graphics rendering device and said right image view signal to a second 3D graphics rendering device." The i-O Glasses fail to teach or suggest this element. Rather, the i-O Glasses provide the left and right images to a single device.

Additionally, claim 1 recites "separately rendering in tandem left and right image views for display in a 3D stereoscopic vision display device." The i-O Glasses fail to teach or suggest this element. When using the i-O Glasses, separate image views are not rendered. Only a single interlaced VGA output signal is displayed on a 2D screen like the conventional mode depicted in figure 1A of the present application. Moreover, no images are displayed on a 3D stereoscopic vision display device. Rather, the images are displayed on a 2D display device. The i-O Glasses are only used to control the viewing of the images on the 2D display device.

As for the dependent claims, all are allowable given the failure of the i-O Glasses to anticipate the independent claim. Additionally, the i-O Glasses fail to teach the elements of the dependent claims as well, examples of which are discussed below.

Claim 2 recites a 3D stereoscopic vision display device. As explained with respect to claim 1, the i-O Glasses are not such a device.

Claim 4 recites that "the intercepting and redirecting of the 3D game data is obtained by providing a wrapper for the game software's native API display driver and replacing with stereoscopic pseudo driver display function calls linked under the same name as the game software's native API display driver for a 2D display." The i-O glasses provide no such teaching and make no mention of how the H3D software drivers gather the Z axis depth information from the API.

Claim 5 recites the native API formats supported by the wrapper. As discussed with respect to claim 1, the i-O Glasses do not teach use of a wrapper.

Claim 7 recites "the pseudo driver generates a 3D stereoscopic vision display using one physical graphics card with dual graphics generator card heads for separately rendering right and left image view for the 3D stereoscopic vision display." The documents associated with the i-O Glasses do not discuss dual graphics generator card heads.

Claim 10 recites "the intercepted 3D game data is combined with other 3D content using a mixer and a dual rendering system." The documents associated with the i-O Glasses do not discuss using either a mixer or a dual rendering system.

Claim 12 recites "another pseudo driver operates on the 3D game data in tandem with the pseudo 3D display driver." The i-O Glasses do not teach use of the recited pseudo driver let alone two pseudo 3D display drivers operating in tandem.

Claim 13 recites "the other pseudo driver is a stereo sound or a directional force feedback driver." The i-O Glasses do not teach use of the recited pseudo driver let alone one which is a stereo sound or directional force driver.

Turning to the other independent claim, claim 15 recites "providing a pseudo 3D display driver that links to the native API display driver by intercepting image display function calls to the native API display driver from the application software and redirecting them through the pseudo 3D display driver in order to generate multiple, separate image views." The i-O Glasses fail to teach or suggest this element. The drivers used with the i-O Glasses do not generate separate image views. Rather, when using the i-O Glasses, the drivers produce a single interlaced signal that is displayed on a 2D screen like the conventional mode depicted in figure 1A of the present application.

Also, claim 15 recites "provide the image views to respective ones of a corresponding multiple 3D graphics rendering devices for a multi-view 3D display." The i-O Glasses fail to teach or suggest this element. The documents describing the i-O Glasses discuss providing the images to a single device (a single VGA card). Moreover, no images are displayed on a multi-view 3D display. Rather, the images are displayed on a 2D display device. The i-O Glasses are only used to control the viewing of the images on the 2D display device.

As for the dependent claims, all are allowable given the failure of the i-O Glasses to anticipate the independent claim. Additionally, the i-O Glasses fail to teach the elements of the dependent claims as well, examples of which are discussed below.

Claim 16 recites a 3D multi-view display. As explained with respect to claim 15, the i-O Glasses are not such a device.

Claim 19 recites "the pseudo 3D display driver generates right and left eye image views, and provides them to respective right and left graphics rendering devices in parallel for converting the right and left eye views into right and left image display outputs, respectively, which are used for a 3D stereoscopic vision display." The i-O Glasses fail to teach or suggest

this element. The drivers used with the i-O Glasses do not generate a left image view signal and a right image view signal. Rather, when using the i-O Glasses, the drivers produce a single interlaced signal. Moreover, when using the i-O Glasses there are no right and left image display outputs. Rather, there is a single interlaced VGA signal output to a 2D display.

Claim 20 recites "including separate graphics generator cards for rendering the right and left image views in parallel for the 3D stereoscopic vision display." The i-O Glasses fail to teach or suggest this element. The documents describing the i-O Glasses discuss only a single VGA card and the i-O Glasses are configured for receiving input from a single VGA card only.

Applicant respectfully submits that the pending claims are allowable, and respectfully requests a Notice of Allowance for this application. Should the Examiner believe that a telephone conference would expedite the prosecution of this application; the undersigned can be reached at the telephone number set out below.

Please note that the undersigned attorney has changed correspondence address and telephone number. A change of address request for the attorney's customer number has been submitted.

Respectfully submitted,

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